

REMARKS

The above identified Application has been carefully reviewed with the Office Action of October 2, 2007, the Examiner's comments, and the references cited therein in mind. Initially, it is noted that claims 1-9 are pending in the Application, and claims 10-19 have been withdrawn.

Claims 1-9 have been rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Smith et al. The Office Action takes the position that there is disclosed in Smith et al. composite material comprising a laid scrim reinforcement material made of continuous glass fibers or polyester fibers. The Office Action continues that the term "laid scrim" generally means an adhesively bonded scrim fabric and that a suitable adhesive material will bond the yarns of the scrim fabric together, which the Examiner is equating to the bonding agent claimed in the present invention. It is further stated in the Office Action that the composite also comprises a nonwoven mat (is) bonded to the scrim by using a polyester adhesive or a polyvinyl acetate adhesive and that it should be noted that Applicant, on page 9, lines 33-37 of the present specification discloses that preferred adhesives include polyethylene/vinyl acetate or polyester adhesives.

The Office Action continues with the statement Smith et al. disclosed the claimed invention except for the teaching that the viscosity of the adhesive, when measured at a temperature of 230° C is less than equal to 40 Pa.s., or that the viscosity of the adhesive, when measured at a temperature of 200 ° C is less than or equal to 30 Pa.s. The Office Action concedes that although Smith et al do not explicitly teach the claimed

viscosity, it is reasonable to presume that the claimed viscosity is inherent to the invention of Smith et al. The Office Action further states that support for said presumption is found in the use of like materials, (*i.e.*, thermally reactive adhesive comprising polyester or polyethylene/vinyl acetate) and that the burden is upon Applicant to prove otherwise. In re Fitzgerald, 205 USPQ 594. Continuing, the Office Action states that in addition, the presently claimed property of the adhesive viscosity, when measured at a temperature of 230 °C that is less than equal to 40 Pa.s., or that adhesive viscosity, when measured at a temperature of 200 °C that is less than or equal to 30 Pa.s., would obviously have been present once the Smith et al. product is provided.

The Office Action concludes with a note regarding claim 7, that Smith et al. discloses the claimed invention except for the teaching that the adhesive has a mass per unit area of between 2-300 g/m² and that in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used an adhesive in the amount of 2-300 g/m² since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. The Office Action further states in the present invention, one having ordinary skill in the art would use an adhesive in the amount of 2-300 g/m², motivated by the desire to create a scrim with increased lamination strength.

The rejection is respectfully traversed. Applicant has carefully reviewed the Office Action and the statements contained there, and the cited prior art, particularly

Smith et al. It is clear from the Office Action that the Office overlooks an essential feature of the invention, that is that the adhesive is thermally reactive in order to be able to laminate, after thermal activation, the scrim on an external element. The adhesive in the Applicant's disclosure does not bond the yarns of the scrim fabricated together. In the disclosure, it is taught that the yarns are bonded together by a bonding agent. Attention is directed to the specification, page 7, line 32 to page 8, line 10, wherein it is noted that "within the meaning of the invention, any bonding agent commonly used at the present time in the technical field in question may especially be used, and in particular any polymeric adhesive of the thermal plastic polymer type. By way of non limiting example, the bonding of the network of yarns forming the textile scrim according to the invention may thus be carried out by synthetic lattices (SBR), PVAC, PVC plastisols, polyvinyl alcohol (PVA), conventional hot melt impregnations, polyurethane bonding agents or acrylic bonding agents, for example.) According to the invention, the textile scrim 5A is coated on at least one of its faces, A, with a thermally reactive adhesive 3 in order to laminate the scrim onto an external element. This is not taught or even suggested by Smith et al. or any other prior art of record in the present application.

It should also be noted that the bonding agent is also the thermally reactive adhesive that in this embodiment has two technical roles or functions, the thermally reactive adhesive (or TRA) is both the bonding agent and the adhesive, the adhesive being present in order to laminate the scrim onto an external element.

Smith et al. does not disclose a composite material coated with a thermally reactive adhesive. Moreover, in the process described at example 1 of Smith et al, the laid scrim is bonded with an acrylic adhesive. This acrylic adhesive is not a thermally reactive adhesive and is further laid into a silicone mold that is filled with gypsum slurry covering the facer. The technical effect of the acrylic adhesive is to bond the yarn of the mat, not to laminate and fix it on the gypsum that is filled on a mold with the mat. In Smith et al., the slurry is allowed to set for 20 minutes after the composites are removed from the mold and cured at 40 °C for 24 hours. In the instant disclosure the thermally reactive adhesive exhibits an adhesive character allowing it to be fastened to an external element when it is heated. In the Smith et al. reference, there is not thermal activation or possibility to be fastened to the scrim mat as prepared. Consequently, it is believed evident that Smith et al. could not anticipate or make obvious any of the claims as filed.

CONCLUSION

With the foregoing explanation, it is believed that all the claims remaining in the Application are in condition for allowance. Early and favorable action in this regard is hereby earnestly solicited. Should there be any minor informalities remaining, the Examiner is requested to call the undersigned attorney so that this case may be passed to issue at an early date.

Respectfully submitted,


James W. Kayden; Reg. No.: 31,532

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.
Suite 1500
600 Galleria Parkway N.W.
Atlanta, Georgia 30339
(770) 933-9500